REMARKS

Claims 9-12 stand rejected under 35 USC 102(b) as being anticipated by US patent No. 6,238,188 (Lifson). Claims 1-8, 13-16 and 17 stand rejected under 35 USC 103(a) as being unpatentable over US patent No. 6,390,779 (Cunkelman) in view of Lifson. Claim 10 stands rejected under the second paragraph of 35 USC 112 as lacking antecedent basis for the phrase "the predicted fault condition". Reconsideration of the rejections (and allowance of all the pending claims) is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1 and 9 have been amended to emphasize aspects of the present invention. Claims 1-17 remain pending.

Claim 10 was amended to provide antecedent basis for the phrase "the predicted fault condition". Thus, this basis of rejection should be withdrawn.

102(b) REJECTIONS

MPEP §2131 provides that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. The identical invention must be shown in as complete detail as contained in the claim. The elements must be arranged as required by the claim.

Claim 9 is directed to a compressed air system for a railroad locomotive. Claim 9, as amended, recites that the value of the slip is defined by the following relationship: Slip = [ES - ((number of active poles of the motor/ total number of poles of the motor) * CS)] / ES, wherein ES represents locomotive engine speed and CS represents compressor speed. Basis for the foregoing amendment may be found in paragraph 14 of the patent application publication (US 2004/0175272 A1). Some of the concomitant advantages may be found in paragraph 13 of the

US patent application publication regarding an air compressor system for a railroad locomotive that determines slip value based on the claimed relationship. Lifson nowhere describes or suggests the structural and/or operational relationships set forth in amended claim 9. Anticipation under 35 U.S.C. §102 requires that "The identical invention must be shown in as complete detail as contained in the ...claim." (Citations omitted) Accordingly, it is submitted that Lifson fails to anticipate or otherwise render unpatentable claim 9.

Claims 10-12 depend from claim 9 and thus incorporate the structural and/or operational relationships set forth in claim 9 plus their own respective recitations. It is respectfully submitted that Lifson also fails to anticipate such claims under the §102 statutory requirements and these rejections should be similarly withdrawn.

103(a) REJECTIONS

M.P.E.P. 2143.04 provides that to establish *prima facie* obviousness of a claimed invention, all the claims limitations must be taught or suggested by the prior art. All words in a claim must be considered for judging the patentability of the claim against the prior art. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending there from is nonobvious.

Claim 1 is directed to a method of operating an air compressor system for a railroad locomotive comprising an air compressor. An electric motor receives electric power from an alternator mechanically coupled to a locomotive engine. The motor drives the air compressor. Claim 1, as amended, recites that the value of the slip is defined by the following relationship: Slip = [ES - ((number of active poles of the motor/ total number of poles of the motor) * CS)] / ES, wherein ES represents locomotive engine speed and CS represents compressor speed. It is respectfully submitted that neither Lifson nor Cunkelman teach or suggest the structural and/or operational relationships set forth in amended claim 1, and

consequently the Lifson/Cunkelman combination lacks some of the advantages afforded by the claimed invention regarding methodology (or a system as set forth in claim 9) that determines slip value based on the claimed relationship. Therefore, the Lifson/Cunkelman combination fails to render claim 1 (and claim 9) unpatentable under 35 USC §103(a) and applicants respectfully submit that this rejection should be withdrawn.

Claim 2-8 depend from claim 1 and thus incorporate the structural and/or operational relationships set forth in claim 1, plus their own respective recitations. Consequently, the respective combinations taught by claims 2-8 are not taught or suggested by the Lifson/Cunkelman combination. Therefore, the Lifson/Cunkelman combination fails to render claim 2-8 unpatentable under 35 USC §103(a) and applicants respectfully submit that these rejections should be withdrawn.

Claim 10-17 depend from claim 9 and thus incorporate the structural and/or operational relationships set forth in claim 9, plus their own respective recitations. Consequently, the respective combinations taught by claims 10-17 are not taught or suggested by the Lifson/Cunkelman combination. Therefore, the Lifson/Cunkelman combination fails to render claim 10-17 unpatentable under 35 USC §103(a) and applicants respectfully submit that these rejections should be withdrawn

For all of the above reasons, applicants submit that the claims are now in proper form, and that each claim defines patentable subject matter over the cited prior art. Therefore, applicants request reconsideration of the application and early allowance of claims 1-17 in light of the foregoing amendments and remarks.

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Respectfully submitted,

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